

# CENTRAL INTERCEPTOR BULLETIN

Dundale Avenue site, Road Berm, 68-78 Dundale Avenue, Blockhouse Bay

We're building the Central Interceptor, a super-sized wastewater tunnel to reduce overflows, creating a better environment for you to enjoy.

## Milestone achievement

In mid-November last year, Domenica, our micro tunnel boring machine (mTBM), made her breakthrough at our Miranda Reserve site after tunnelling from the Dundale Avenue site. This was the longest pipe-jacked section on the project, measuring 1187 metres. This was the mTBM's third drive and another huge milestone to add to our 2022 achievements.

Domenica has one final drive left on Link Sewer C from Miranda Reserve to Pump Station 25 in Blockhouse Bay.

## Site update – What's next for Dundale?

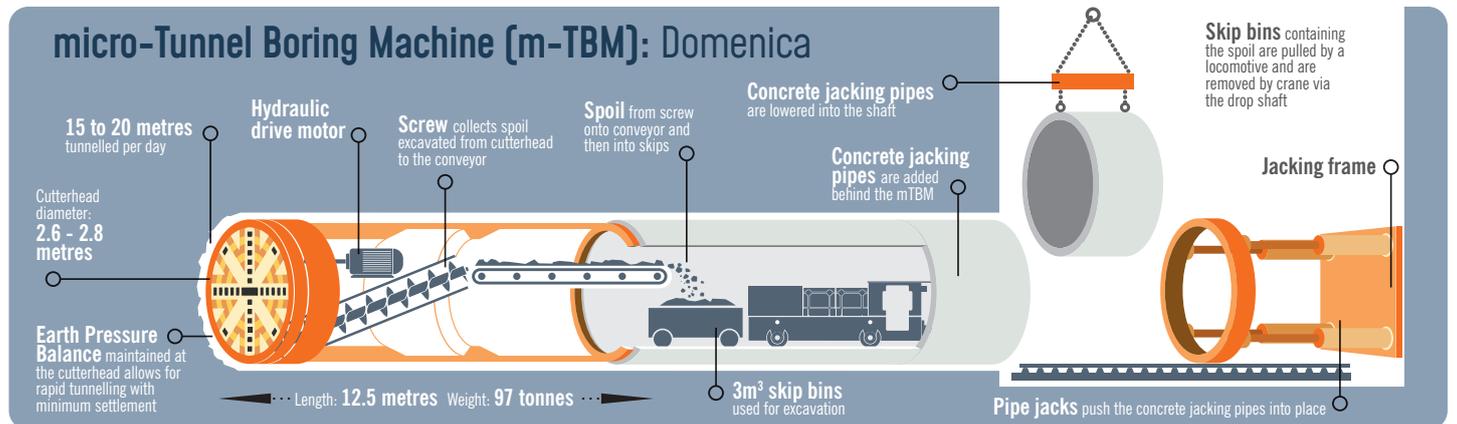
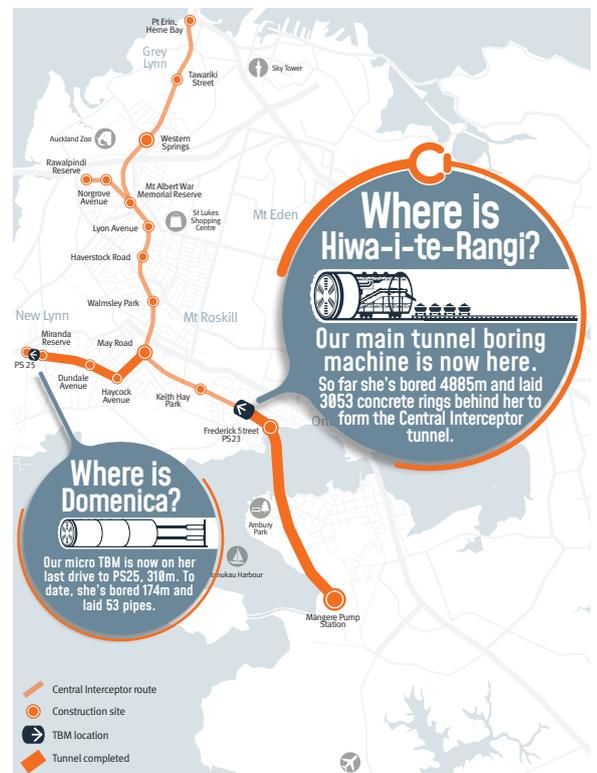
The Dundale Avenue site has been busy in recent months completing the final pipe-jacking drive from Dundale Avenue to Miranda Reserve. Our team on site is now removing the services and materials inside the tunnel that were supporting the mTBM. After we have removed these, the team will start working on plastic-welding the pipes together.

The biggest challenge for the Dundale Avenue site is the removal of the noise reduction hangar that enabled our teams to work through the night using the gantry crane to lift spoil out of the shaft. The team is now working hard to remove these and prepare the site for the civil engineering team. Once the noise hanger and gantry crane are removed, the civils team will prepare for the shaft lining and final surface works before starting on site reinstatement.

## Tunnel progress

Check out our website which now has a weekly update of the TBM's progress. <https://www.watercare.co.nz/Central-interceptor/Constructing-the-Central-Interceptor>.

You can also follow us on Facebook, or Instagram.



# Sustainability win – Service Brackets Initiative

Dan Malcolm, the project engineer for shafts and microtunnels, won a sustainability award for his service brackets initiative in late 2022. On the Central Interceptor Project, we encourage our team to improve the systems they work with daily.

Dan’s bracket initiative shows how a simple change can have a huge positive impact.

The micro tunnel boring machine (mTBM) requires a lot of services. This includes main power, bentonite and hydraulic lines.

Pipes and cables carry services from the bottom of the shaft, all the way to the front of the tunnel. We install these service brackets temporarily inside the pipe sections to support the mTBM. The brackets secure the pipes and cables to the walls of the tunnel to avoid derailments of the locomotives that transport spoil out of the tunnel.



We used a double bracket system in previous drives with brackets every 1.5 metres. Dan came up with an idea to trial a single bracket every 3 metres. This would significantly decrease the number of brackets required and save money and time. This method passed all the necessary tests and Dan’s single bracket system is now the method we apply.

Dan's idea resulted in significant savings. No longer using the double bracket system saved us over 5,200kg of CO2 emissions. We no longer had to purchase any additional brackets, saving a total of 260 extra brackets. This resulted in a saving of 2,080kg of steel and \$60,000 in material costs. The brackets themselves take time to assemble. With fewer brackets to put together, our team is saving more than 130 work hours. These savings are only taking into account the drives on Link Sewer C, meaning that we can multiply these savings for future drives.



## Our people

The Central Interceptor project stretches across 16 sites from Māngere to Grey Lynn. Each of these has a team of people working there on various activities and construction stages. We work with incredible people with different skills, backgrounds, experiences and qualifications. In this regular feature, we’re going to find out more about some of them. A great way to get to know your neighbours.

**Name:** Dan Malcolm

**Position:** Project Engineer – Shafts and Microtunnels

**Role on site:** Oversee mTBM daily activities with a talented crew to make sure things run smoothly. My role includes quality assurance for the jacking pipes and microtunnelling works, health and safety monitoring and planning for upcoming tunnel drives with larger pipes. I work with a skilled team and rely on them for things to run smoothly.

**Background:** I was born in Belgium, grew up in Botswana, lived in the south of England and studied my masters in Civil Engineering, specialising in geotechnical engineering in the north of England. I moved to New Zealand at the end of 2015, and I am thankful I made that decision.

**Previous jobs:** I worked on the Watercare Ponsonby Reservoir upgrade, Whenuapai stormwater and taxiway, Council flood mitigation scheme on Waiheke Island and the Chief’s rugby stadium corporate facilities.

**Most memorable work moment:** I’ve been lucky enough to work on airbases in the UK and NZ which is always an interesting experience just to get to the sites. I worked on a project on Waiheke Island during the first Covid lockdowns and it was a particularly challenging but enjoyable time. It is a beautiful island to live and work on!

**Outside of work:** I mainly enjoy family time with my partner and 8-month-old daughter, who keeps us very busy. Otherwise, I enjoy eating out and listening to live music.

### Any questions?

For up to date information please see our website:

 [www.centralinterceptor.co.nz](http://www.centralinterceptor.co.nz)

You can also email us at:

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